## Amendment

A listing of claims follows:

1. (currently amended) An interface module for a local area network (LAN),~~networks having~~ the interface module comprising:

a. an inductive component used as a transformer and comprising:~~for coupling interface circuits to a data line used to connect computers, with the inductive component having a magnetic core and multiple windings applied to the core, wherein the inductive component used as a transformer has~~

i. a magnetic core made of an amorphous or nanocrystalline alloy with a permeability $\mu > 15{,}000$; and

ii. multiple windings applied to the core, the number of turns of the windings ~~is~~being between 5 and 25; and

b. means for connecting the inductive component directly or indirectly to an interface circuit of the LAN and a data line of the LAN.

2. (previously presented) The interface module according to claim 1, wherein the amorphous or nanocrystalline alloy has a permeability $\mu > 30{,}000$.

3. (previously presented) The interface module according to claim 1, wherein the alloy has the composition $Co_a(Fe_{1-c}Mn_c)_bNi_dM_eSi_xB_yC_z$, with M indicating one or more elements from the group Nb, Mo, Ta, Cr, W, Ge, and/or P and a+b+d+e+x+y+z = 100, with

Co a = 40 - 82 at%

Fe+Mn b = 3 - 10 at%

Mn/Fe c = 0 - 1

Ni d = 0 - 30 at%

M e = 0 - 5 at%

Si x = 0 - 17 at%

B y = 8 - 26 at%

C z = 0 - 3 at%

and 15 at% < e+x+y+z < 30 at%.

4. (previously presented) The interface module according to claim 3, wherein the following relationships apply:

Co a = 55 - 72 at%

Mn/Fe c = 0 - 0.5

Ni d = 0 - 20 at%

M e = 0 - 3 at%

B y = 8 - 20 at%

Si x = 1 - 18 at%

and 20 at% < e+x+y+z < 30 at%.

5. (previously presented) The interface module according to claim 1, wherein the alloy has the composition $Fe_xCu_yM_zSi_vB_w$, with M indicating an element from the group Nb, W, Ta, Zr, Hf, Ti, Mo, or a combination of these and x + y + z + v + w = 100%, with

Fe $x = 100\% - y - z - v - w$

Cu $y = 0.5 - 2$ at%

M $z = 1 - 6$ at%

Si $v = 6.5 - 18$ at%

B $w = 5 - 14$ at%

with $v + w > 18$ at%.

6. (previously presented) The interface module according to claim 5, wherein the following relationships apply:

Cu $y = 1$ at%

M $z = 2 - 4$ at%

Si $v = 14 - 17$ at%,

with $v + w = 20$ to 24 at%.

7. (previously presented) The interface module according to claim 1, wherein the alloy has the composition $Fe_xZr_yNb_zB_vCu_w$, with $x + y + z + v + w = 100$ at%, with

Fe $x = 100$ at% $- y - z - v - w$

Zr $y = 2 - 5$ at%

Nb $z = 2 - 5$ at%

B $v = 5 - 9$ at%

Cu $w = 0.5 - 1.5$ at%

with $y + z > 5$ at% and $y + z + v > 11$ at%.

8. (previously presented) The interface module according to claim 7, wherein the following relationships apply:

| | |
|---|---|
| Fe | x = 83 - 86 at% |
| Zr | y = 3 - 4 at% |
| Nb | z = 3 - 4 at% |
| Cu | w = 1 at% |

with $y + z > 7$ at% and $y + z + v > 12$ to 16 at%.

9. (previously presented) The interface module according to claim 1, wherein the alloy has the composition $Fe_xM_yB_zCu_w$, with M indicating an element from the group Zr, Hf, Nb and $x + y + z + w = 100$ at%, with

| | |
|---|---|
| Fe | x = 100 at% - y - z - w |
| M | y = 6 - 8 at% |
| B | z = 3 - 9 at% |
| Cu | w = 0 - 1.5 at%. |

10. (previously presented) The interface module according to claim 9, wherein the following relationships apply:

| | |
|---|---|
| Fe | x = 83 - 91 at% |
| M | y = 7 at%. |

11. (previously presented) The interface module according to claim 1, wherein the alloy has the composition $(Fe_{0.98}Co_{0.02})_{90-x}Zr_7B_{2+x}Cu_1$, with x = 0 - 3 at%, with the residual alloy component Co able to be replaced by Ni with appropriate equalization.

12. (previously presented) The interface module according to claim 11, wherein x = 0.

13. (previously presented) The interface module according to claim 2, wherein the alloy has the composition $Co_a(Fe_{1-c}Mn_c)_bNi_dM_eSi_xB_yC_z$, with M indicating one or more elements from the group Nb, Mo, Ta, Cr, W, Ge, and/or P and a+b+d+e+x+y+z = 100, with

| | |
|---|---|
| Co | a = 40 - 82 at% |
| Fe+Mn | b = 3 - 10 at% |
| Mn/Fe | c = 0 - 1 |
| Ni | d = 0 - 30 at% |
| M | e = 0 - 5 at% |
| Si | x = 0 - 17 at% |
| B | y = 8 - 26 at% |
| C | z = 0 - 3 at% |

and 15 at% < e+x+y+z < 30 at%.

14. (previously presented) The interface module according to claim 2, wherein the alloy has the composition $Fe_xCu_yM_zSi_vB_w$, with M indicating an element from the

group Nb, W, Ta, Zr, Hf, Ti, Mo, or a combination of these and $x + y + z + v + w = 100\%$, with

| | |
|---|---|
| Fe | $x = 100\% - y - z - v - w$ |
| Cu | $y = 0.5 - 2$ at% |
| M | $z = 1 - 6$ at% |
| Si | $v = 6.5 - 18$ at% |
| B | $w = 5 - 14$ at% |

with $v + w > 18$ at%.

15. (previously presented) The interface module according to claim 2, wherein the alloy has the composition $Fe_xZr_yNb_zB_vCu_w$, with $x + y + z + v + w = 100$ at%, with

| | |
|---|---|
| Fe | $x = 100$ at% $- y - z - v - w$ |
| Zr | $y = 2 - 5$ at% |
| Nb | $z = 2 - 5$ at% |
| B | $v = 5 - 9$ at% |
| Cu | $w = 0.5 - 1.5$ at% |

with $y + z > 5$ at% and $y + z + v > 11$ at%.

16. (previously presented) The interface module according to claim 2, wherein the alloy has the composition $Fe_xM_yB_zCu_w$, with M indicating an element from the group Zr, Hf, Nb and $x + y + z + w = 100$ at%, with

| | |
|---|---|
| Fe | $x = 100$ at% $- y - z - w$ |
| M | $y = 6 - 8$ at% |

B z = 3 - 9 at%

Cu w = 0 - 1.5 at%.

17. (previously presented) The interface module according to claim 2, wherein the alloy has the composition $(Fe_{0.98}Co_{0.02})_{90-x}Zr_7B_{2+x}Cu_1$, with x = 0 - 3 at%, with the residual alloy component Co able to be replaced by Ni with appropriate equalization.

18. (currently amended) ~~An~~The interface module according to claim 1 in whichfor local area networks (LANs) having an inductive component used as a transformer for coupling interface circuits to a data line used to connect computers, with the inductive component ~~functioning~~functions at LAN data rates up to 100Mbit/second~~ and having a magnetic core and multiple windings applied to the core, wherein the inductive component used as a transformer has a magnetic core made of an amorphous or nanocrystalline alloy with a permeability $\mu > 15{,}000$ and the number of turns of the windings is between 5 and 25~~.

## Response

Claims 1-18 remain pending in the application. The Examiner finally rejected these claims, expressing uncertainty as to the phrase "a magnetic core" appearing in lines 5-6 of claim 18. The Examiner also disagreed with Applicants' arguments as to patentability, stating:

> The recitation of "for . . . local area networks (LANs)" has not been given patentable weight because the recitation occurs in the preamble.

See Office Action at p. 5.

In response to the Examiner's comments, Applicants have revised independent claim 1 ***solely*** to reference, in the body of the claim (rather than in its preamble):

> means for connecting the inductive component directly or indirectly to an interface circuit of the LAN and a data line of the LAN.

This revision raises no new issues. Further, because none of the cited references performs the specified function pursuant to 35 U.S.C. § 112, Applicants request that the pending claims be allowed.

As noted in the paper submitted February 18, 2004:

> claim 1 [refers] to an interface module for local ***area*** networks (LANs) instead of local data networks. As noted in the application, LANs comprise frequency ranges to at least 100-125MHz (*i.e.* data rates up to at least 100-125Mbits/second). See Application at p. 4, l. 4 through p. 5, l. 11. By contrast, the frequency ranges disclosed in the Yoshizawa and Binkofski Patent Documents and in the Suzuki patent are lower than 100kHz (*i.e.* 100Kbits/second), ***more than one thousand times lower than the upper frequency range of the invention***. Indeed, the ISDN networks addressed in the art cited by the Examiner have data rates of only 64 Kbits/second (64kHz), significantly lower than even 100kHz--and ***almost two thousand times lower*** than the upper frequency range of the invention.

> In view of the much higher frequency ranges involved, the present invention seeks to lower the number of turns of the windings of the inductive components. By lowering this number of turns, the leakage inductance is reduced, positively affecting the overall performance of the interface. None of the patent documents of record, by contrast, disclose or suggest lowering the number of windings applied to high frequency ranges and cores having high permeability. For at least this reason, Applicants thus request that the Examiner reconsider and allow the pending claims.

See Amendment, Response, and Petition for Extension of Time (mailed February 18, 2004) at pp. 9-10 (footnote omitted).

Finally, Applicants have revised claim 18 to delete the phrase queried by the Examiner. They also note that claim 18 describes that the inductive component "functions at LAN data rates up to 100Mbit/second," dramatically higher than the ISDN networks of the patents cited by the Examiner. Applicants thus believe claim 18 is allowable for this reason as well.

## Petition for Extension of Time

Pursuant to 37 C.F.R. § 1.136(a), Applicants petition the Commissioner for all extensions of time needed to respond to the Office Action.

## Fees

Enclosed is a check for $980.00 for the petition fee. Applicants believe no other fee presently is due. However, if Applicants' belief is mistaken, the Commissioner is authorized to debit Deposit Account No. 11-0855 for any additional fee due as a consequence of Applicants' submission of this paper.